

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
24 July 2003 (24.07.2003)

PCT

(10) International Publication Number  
WO 03/060952 A1

(51) International Patent Classification<sup>7</sup>: H01J 61/36, 61/82

(21) International Application Number: PCT/IB02/05683

(22) International Filing Date:  
20 December 2002 (20.12.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
02075147.5 15 January 2002 (15.01.2002) EP

(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

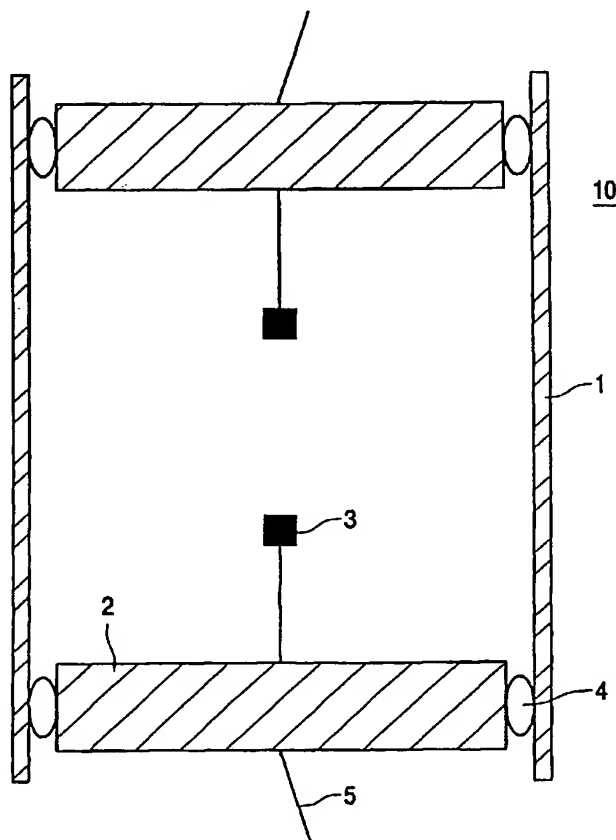
(75) Inventors/Applicants (for US only): APETZ, Rolf, T., A. [DE/NL]; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL); MULDERIJ, Ton, R. [NL/NL]; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL); BECKERS, Lucas, J., A., M. [NL/NL]; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agent: DUSSELDORP, Jan, C.; Internationaal Octrooibureau B.V., Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,

[Continued on next page]

(54) Title: HIGH-PRESSURE DISCHARGE LAMP



(57) Abstract: The invention relates to a high-pressure discharge lamp having a discharge vessel (10) with a ceramic wall (1) which is closed at one end by a plug. The plug (2) is provided with an electrode (3) arranged in the discharge vessel (10). The ceramic wall (1) and the plug (2) are jointed by a fusion joint (4). The fusion joint (4) comprises an alloy comprising substantially molybdenum and aluminum. Preferably, the fusion joint (4) comprises a material selected from the group formed by  $Al_8Mo_3$ ,  $Al_{63}Mo_{37}$ ,  $Al_{63}Mo_{37}$ ,  $AlMo$ ,  $AlMo_3$  and combinations of said materials. Preferably, the plug (2) comprises a material selected from the group formed by molybdenum, tungsten and combinations of said materials. Preferably, the ceramic wall (1) comprises aluminum nitride. According to the invention, the plug (2) has a high corrosion resistance.